# Government of the District of Columbia Office of the Chief Financial Officer



Natwar M. Gandhi Chief Financial Officer

## **MEMORANDUM**

TO:

The Honorable Vincent C. Gray

Chairman, Council of the District of Columbia

FROM:

Natwar M. Gandhi

Chief Financial Officer

DATE:

**January 11, 2010** 

**SUBJECT:** 

Fiscal Impact Statement - "District of Columbia Retirement Board

Actuarial Method Amendment Act of 2009"

**REFERENCE:** 

Bill 18-477

#### Conclusion

Funds are sufficient in the FY 2010 through FY 2013 budget and financial plan to implement the proposed legislation. The proposed actuarial change is primarily technical, and does not affect the overall amount that would be contributed to the Police Officers' and Fire Fighters' Retirement Plan and the Teachers' Retirement Plan ("the Plans") for each participant. However, the proposed calculation method will slightly alter the contribution patterns over time.

### Background

Each year on October 1<sup>st</sup> the District of Columbia Retirement Board's actuary ("the Actuary") estimates the annual contribution to the Plans for the following fiscal year. The proposed legislation would change<sup>1</sup> the actuarial method used to calculate the District's contribution to the Plans from the aggregate method to the entry age normal method.

The difference between the aggregate method and entry age normal method of calculating the District's contribution to the Plans is primarily technical and affects the pattern of contributions over time, not the overall amount contributed. Every October 1<sup>st</sup>, the Actuary calculates the

<sup>&</sup>lt;sup>1</sup> By amending the Police Officers, Fire Fighters, and Teachers Retirement Benefit Replacement Plan Act of 1998, enacted September 18, 1998 (D.C. Law 12-152; D.C. Official Code § 1-907.03)

present value of expected pension benefits<sup>2</sup> and the value of the pension fund assets. When using the aggregate method, the difference between benefits and assets is then used to determine the annual contribution. Under the entry age normal method, the difference between assets and benefits would still be estimated but the District's contribution would be determined by two additional calculations: the amount of benefits that active participants are expected to earn in the current year of service (the annual benefit cost, or "normal cost"), and the remaining difference between benefits accrued to the valuation date and assets, amortized based on the Retirement Board's amortization policy.<sup>3</sup> As a result, normal cost would be reported annually<sup>4</sup> as a component of the contribution.

To simply illustrate the difference between the two methods, consider the following example: in a year when asset markets perform particularly well, the value of assets might exceed the present value of pension benefits. Under the aggregate method, no contribution would be required. Under the entry age normal method, because the difference between assets and benefit costs would be amortized, some contribution would be required. Conversely, when asset markets underperform, contributions would be less under the entry age normal method compared to the aggregate method; thus, year-to-year changes to the District's pension fund contribution would be less volatile.

## Financial Plan Impact

Funds are sufficient in the FY 2010 through FY 2013 budget and financial plan to implement the proposed legislation. The FY 2010 budget includes \$133 million for the Police Officers' and Fire Fighters' Retirement System, and \$3 million for the Teachers' Retirement System. Currently, the budget and financial plan uses a single simple assumption, that the District's contributions to the Plans will increase 5 percent each year, without taking into consideration changes in demographic, inflation, salary, or investment assumptions.

The following table illustrates the differences between the two methods, based on certain assumptions about amortization schedules, investment returns, and rates of inflation.

<sup>&</sup>lt;sup>2</sup> The present value of expected pension benefits is the current value of all of the future pension payments on October 1<sup>st</sup> based on assumptions about inflation and demographics of the Plan participants (including how long participants will work and how long they will live, when participants plan to retire and begin receiving benefits, and will participants become disabled and no longer be able to work).

The period of amortization and the economic assumptions involved in the calculation of the pension contribution will be determined by the Retirement Board. Economic assumptions include inflation rate (used to discount future benefits, takes into consideration inflation rate) and expected long term rate of return on assets (year over year expected return on assets, average rate of earnings expected on current and future investments to pay benefits).

<sup>&</sup>lt;sup>4</sup> The Government Accounting Standards Board requires plans that use the aggregate method to calculate the annual benefit cost to use the entry age normal method to determine and report funding status (ratio of assets to actuarial accrued liability), but plans are not required to report the entry age normal cost.

Illustration of Different Methods to Determine the Annual Contribution to the Police, Fire, and Teacher Pension Funds (\$ millions)							
Valuation	Fiscal Year	Aggregate Method <sup>a</sup>			Entry Age Normal Method <sup>a</sup>		
Date	Contributions	Teachers	Police/Fire	Total	Teachers	Police/Fire	Total
10/1/2009	2011	-	\$127.2	\$127.2	\$4.7	\$126.9	\$131.6
10/1/2010	2012	-	\$135.6	\$135.6	\$4.9	\$135.3	\$140.2
10/1/2011	2013	-	\$156.6	\$156.6	\$5.2	\$157.0	\$162.2
10/1/2012	2014	\$10.5	\$178.4	\$188.9	\$9.0	\$179.4	\$188.4
10/1/2013	2015	\$22.4	\$199.2	\$221.6	\$17.2	\$200.8	\$218.0
10/1/2014	2016	\$32.8	\$199.2	\$232.0	\$24.7	\$200.8	\$225.5
Total Contribution FY 2011 – FY 2016 <sup>b</sup>		\$65.7	\$996.2	\$1,061.9	\$65.7	\$1,000.2	\$1,065.9

NOTE: The purpose of this projection of contributions is to compare one actuarial cost method to another. All calculations have been done on a simplified basis without regard to specific demographic characteristics of the Plan's populations.

<sup>&</sup>lt;sup>a</sup> Estimates are based on a 20 year amortization schedule, 7 percent investment return, 4.25 percent inflation (CPI), 4.75 percent salary inflation, and a minimum contribution of 50 percent of the normal cost for each plan. It is important to note that the Retirement Board may choose a different amortization period or other funding policies which could impact contributions.

<sup>&</sup>lt;sup>b</sup> Actual contributions after FY 2011 will vary from those shown in this table due to changes in demographic, inflation, salary, and investment experience over time. Significant gains or losses would cause actual contributions to be significantly lower or higher than what is shown.